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**The effectiveness of using the mind mapping strategy
in improving preparatory school students'
Creative writing skills**

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Abstract

This study investigated the effectiveness of the using mind mapping strategy in improving creative writing skills of third-year preparatory school students. The group of the study consisted of (30) students at Um Al-Momineen Preparatory School. It utilized the one group quasi-experimental design with its pre-post testing procedures. The instruments included a creative writing skills test for preparatory school students, creative writing skills checklist, and interviews for teachers and students. The study was conducted during the academic year 2020/2021. The results showed that there were statistically significant differences between the mean scores of the participants in the pre-post testing of creative writing skills favoring the post testing. The study concluded that using mind mapping strategy proved to be remarkably effective in improving creative writing skills of third-year preparatory school students.

Key words: Mind mapping strategy - Creative writing skills- preparatory stage students

Introduction

English is the most dominant language used for international communication by people with different native languages all over the world. It is used in a variety of areas; one of these areas is education. English consists of four basic skills. These skills are reading, writing, listening and speaking. Writing is one of language skills that are used for indirect communication. The ability to write clearly will help to communicate ideas effectively and get the desired results in business and personal life.

Writing is one of productive skills that must be mastered by all the students in learning English as writing is an essential skill in learning English as a foreign language. Rao (2007) assents that writing helps to motivate students' thinking, organize ideas, and develop their ability to summarize, analyze and criticize as well as strengthening students' learning, thinking and reflecting on the English language.

Ibnian (2011) indicates that writing can be divided into two major kinds: functional and creative. Functional writing refers to that kind of writing which aims at conveying a specific, direct and clear message to a specific audience. It includes different genres such as writing instruction, formal letters, notes, invitations, advertisement and reports. Whereas creative writing is the writing through which individuals express their feelings, opinions, reactions and ideas to the reader in a distinguished literary style.

Creative writing can help students explore to approach life in a creative way (Sternberg, Kaufman, & Kaufman, 2009). Tamopolsky (2005) indicates that creative writing may be considered as an important part of any language program. Creative writing depends on creative mind and imagination. It is considered a unique way which can turn imagination and inspiration into visible words (Ahmed, 2011).

Hennings (1997) states that writing is one of the school activities in which creativity is apparent in many different ways such as creating original ideas, choosing the right words, and playing with words. These ways urge the sense and mind. Creative writing also encourages students to use correct spelling and write well-constructed paragraphs.

El-Behery (2013) indicates that creative writing can offer avenues of expression, build writing skills, as well as much-needed confidence in

the classroom. It also fosters self-esteem and builds important communication bridges between learners and teachers. He assumes that, despite its great importance, creative writing teaching and learning do not receive the sufficient interest. In most educational stages, curriculum to some extent addresses the forms of functional writing. There are rare courses for creative writing. Even if there, traditional EFL teaching methods are not adequate for developing such skills. There is a profound need for improving EFL creative writing curriculum, teaching and learning methods.

There are several ways to introduce foreign language creative writing. One of these ways is by creating mind mapping. Mind mapping is the striking combination of imagery, color and visual-spatial arrangement, which is proven to significantly improve information recall, compared to conventional methods of note taking and learning (Boyson, 2009). Therefore, mind maps are commonly used for many educational (learning) purposes, such as note-making, creative thinking, report writing and decision making (Li, Yang & Chen, 2010).

Mind mapping helps students to associate ideas, think creatively, and make connections that might not otherwise make (Buzan, 2010). Hence, the implementation of this technique could help the students to think how to write the important points, compose ideas, organize ideas, and arrange sentence to be a good paragraph.

Budd (2004) referred to mind mapping as a graphic organizer in which the major categories radiate from the central image and lesser categories are portrayed as branches of larger branches. It can be used to generate ideas, take notes, develop concepts and ideas, and improve memory (Buzan, 2000). It is an illustrative tool that assists with managing thought, directing learning, and making connections (Stephens, & Hermus, 2007). It is a good way to introduce an overall topic, increase student involvement, and get thoughts down quickly. It also cuts across ability levels and encompasses all subject matters (Goldberg, 2004).

Moreover, Balim, Evrekli and Aydin (2007) argued that Mind Mapping is an effective brain based visual technique that helps individuals actively use their right as well as their left brains by using their associations of the concepts and ideas and the elements of the image, expression, shape, size and color.

In addition, the Mind Mapping strategy can be used to explore almost any topics in writing and also used in every kind of writing such as: narrative, descriptive, recount, persuasive, argumentative, essay, etc. Students can improve their ideas and lend themselves to discuss ideas in groups in order to increase students' interest of learning English especially in writing skills.

1.1. Aim of the study

The aim of the study is to determine the effectiveness of using mind mapping on third year preparatory school students' creative writing skills.

1.2. Context of the study

The researcher, as an EFL teacher, has noticed that most third-year preparatory school students' used to produce poor creative written texts. Investigating their written production showed that they lacked the ability to write creatively. They couldn't use the figures of speech correctly. Moreover, the absence of originality, fluency, flexibility and elaboration were clear in the students' written texts. The researcher reviewed the previous studies that assured the persistence of EFL students' lack of creative writing skills. Besides, interviews were also administered to EFL teachers in some preparatory schools. They confirmed that most students lack the ability to write creatively in English. Additionally, some teachers' point of views, supervisors' opinions and specialists complains showed insufficiencies in teaching creative writing skills for third-year preparatory school students. Some authors such as Taha (2009); Abd El-Bary (2009)); and Arshavskaya (2015) recommended using other modern strategies to improve the creative writing skills.

Statement of the study

The problem of the study can be stated as follows

Most third-year preparatory school students' at Um Al-Momineen Preparatory School students were poor at writing in general and at creative writing in particular. Therefore, the researcher thought studying the effectiveness of using the mind mapping strategy in improving creative writing skills.

1.3. Questions of the study

1.3.1. What is the effectiveness of using a mind mapping strategy on improving third-year preparatory school students' creative writing skills?

-This main question could be branched into the following sub-questions:

1.3.1.1. What is the effectiveness of using a mind mapping strategy on improving third -year preparatory school students' fluency skills?

1.3.1.2. What is the effectiveness of using a mind mapping strategy on improving third -year preparatory school students' elaboration skills?

1.3.1.3. What is the effectiveness of using a mind mapping strategy on improving third -year preparatory school students' flexibility skills?

1.3.1.4. What is the effectiveness of using a mind mapping strategy on improving third -year preparatory school students' originality skills?

1.4. Objective of the study

The current study aims at:

- Developing creative writing skills of third-year preparatory school students using the mind mapping strategy.

1.5. Hypotheses of the study

The study hypothesized the following:

1.5.1. There are statistically significant differences between the mean scores of the participants in the pre-post testing of creative writing favoring the post-testing.

This main hypothesis could be branched into the following sub-hypotheses

1.5.1.1. There are statistically significant differences between the mean scores of the participants in the pre-post testing of fluency skills favoring the post-testing.

1.5.1.2. There are statistically significant differences between the mean scores of the participants in the pre-post testing of elaboration skills favoring the post-testing.

1.5.1.3. There are statistically significant differences between the mean scores of the participants in the pre-post testing of flexibility skills favoring the post-testing.

1.5.1.4. There are statistically significant differences between the mean scores of the participants in the pre-post testing of originality skills favoring the post-testing.

1.6. Delimitations of the study

The present study was delimited to:

1.6.1. A group of 30 third year Um Al-Momineen Preparatory School students with scores more than 70% in the English language proficiency test in Minia Educational Administration.

1.6.2. Some writing topics.

1.6.3. Deal with creative writing skills such as fluency, elaboration, flexibility and originality.

1.7. Design of the study

The study followed the one group quasi-experimental design (with its pre-post testing procedures).

1.8. Instruments of the study

The researcher designed and adopted the following instruments:

1.8.1. A creative writing skills test (designed by the researcher)

1.8.2. An interview for piloting the research problem through identifying teachers views about the current learning and teaching methods and the extent of their sufficiency to educational outcomes (designed by the researcher).

1.8.3. An interview for piloting the research problem through identifying students' views about difficulties they face in learning creative writing skills (designed by the researcher).

Data Analysis

The data analysis expresses the results regarding the study questions and hypotheses. Having applied the instruments of the study, quantitative data were collected and discussed. The researcher depended mainly on comparing mean scores of the participants using the "t" value.

Results

The experimental design of the study depended on comparing students' scores on the test before and after using mind mapping strategy. The researcher analyzed the quantitative data using the "t" value formula.

Testing the hypotheses

Hypothesis 1:

There are statistically significant mean differences between the mean scores of the participants in the pre-post testing of creative writing skills favoring post testing. To verify this hypothesis, the following statistical results were shown.

Table (1) showed *t*-test results of pre-post testing of the students' creative writing skills.

a) T-test Results of the Students' on the Pre-post testing of creative writing skills

Variables	administration	N	Mean	Std. Deviation	t	η^2	(d)
Creative writing	PRE	30	9.60	1.429	47.387	0.99	17.55
	POST		37.90	3.100	Sig(0.01)		High

The results showed that there is a statistically significant difference between the means of the participants' scores on the pre-post creative writing test as the “t” value (47.387) was significant at 0.01 level. It is also clear that the effect size is large, as the value of the Eta square was (0.99) and the effect size was (17.55), and these values are considered high, and this means there is a significant effectiveness of using the mind mapping strategy in improving third-year preparatory school students' creative writing skills. The results of hypothesis one provided an answer to the first question of the study.

In the light of the results of table 1, the first hypothesis, was confirmed and figure 1 illustrates the results

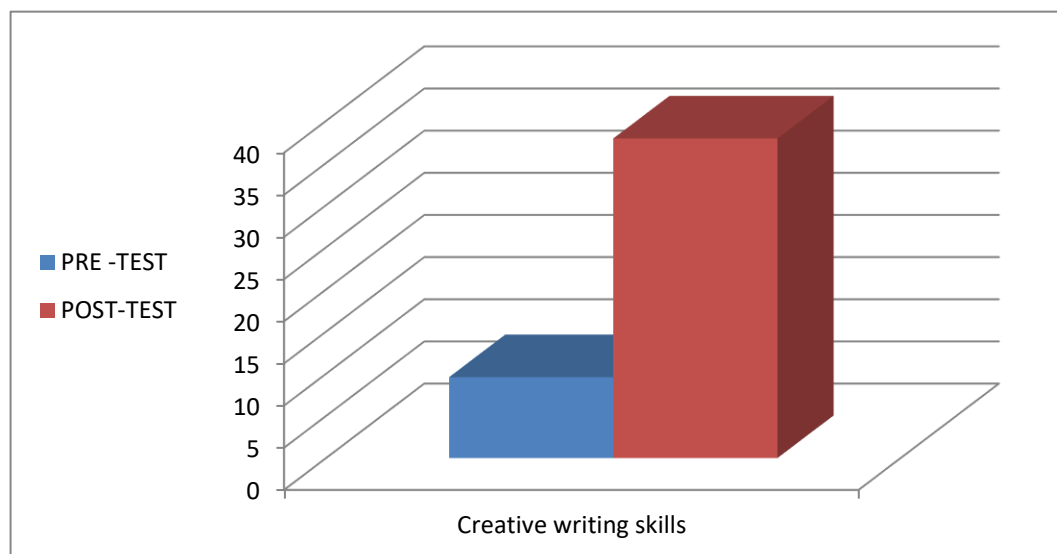


Figure (1) The Difference between pre and post testing of creative writing skills test.

The hypothesis one was branched into the following sub hypotheses:

4.2.1.1 There is a statistically significant difference between the means of scores obtained by the participants on the pre and posttests of some fluency skills (in favor of the posttest).

Table 2)

Analysis of Scores of participants in the Pre and the Post-Testing of fluency Skills

Variables	Administration	N	Mean	Std. Deviation	t	η^2	(d)
Fluency	PRE	30	4.60	1.003	41.782	0.98	15.47
	POST		20.87	1.833	Sig(0.01)		High

Table 2 shows that the mean scores gained by the students of the group are higher on the post-testing of fluency skill (**20.87**) than those obtained on the pretesting (**4.60**). The “T” value is (**41.782**) which is significant at (0.01) level. These high gains of the students in the post-testing of fluency skills could be due to the using of mind mapping strategy. The results of this hypothesis provided an answer to the first sub question of the study as the results revealed that the mind mapping strategy was effective in improving the fluency skill of participants. It is also clear that the effect size is large, as the value of the Eta square was (0.98) and the effect size was (15.47), and these values are considered high, and this means there is a significant effectiveness of using the mind mapping strategy in developing fluency skill.

In the light of the result of table 2, the second hypothesis, was confirmed and figure 2 illustrates the results.

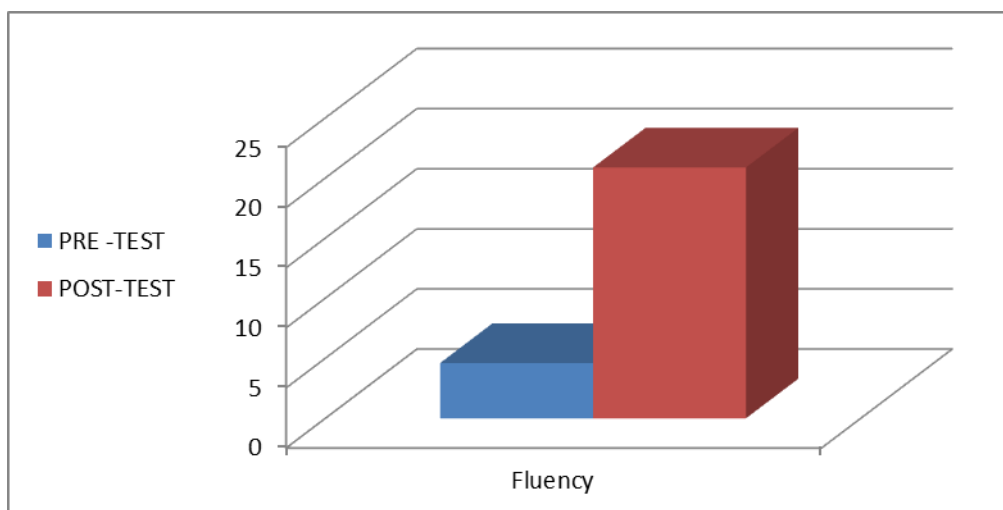


Figure (2) The difference between pre and post testing of fluency skill

4.2.1.2. There is a statistically significant difference between the mean scores of the participants on the pre-post elaboration test (in favor of the posttest).

Table (3)
Analysis of Scores of participants in the Pre and the Post-Testing of Elaboration Skills

Variables	Administration	N	Mean	Std. Deviation	t	η^2	(d)
<i>Elaboration</i>	PRE	30	1.80	.641	11.790	0.93	4.66 High
	POST		5.97	1.593	Sig(0.01)		

Table 3 shows that the mean scores gained by the students of the group are higher on the post-testing of elaboration skill (5.97) than those obtained on the pretesting (1.80). The “T” value is (41.782) which is significant at (0.01) level. These high gains of the students in the post-testing of elaboration skills could be due to the using of mind mapping strategy. The results of this hypothesis provided an answer to the second sub question of the study as the results revealed that the mind mapping strategy was effective in improving the elaboration skill of participants. It is also clear that the effect size is large, as the value of the Eta square was (0.93) and the effect size was (4.66), and these values are considered high, and this means there is a significant effectiveness of using the mind mapping strategy in developing elaboration skill.

In the light of the result of table 3, the second hypothesis, was confirmed and figure 3 illustrates the results.

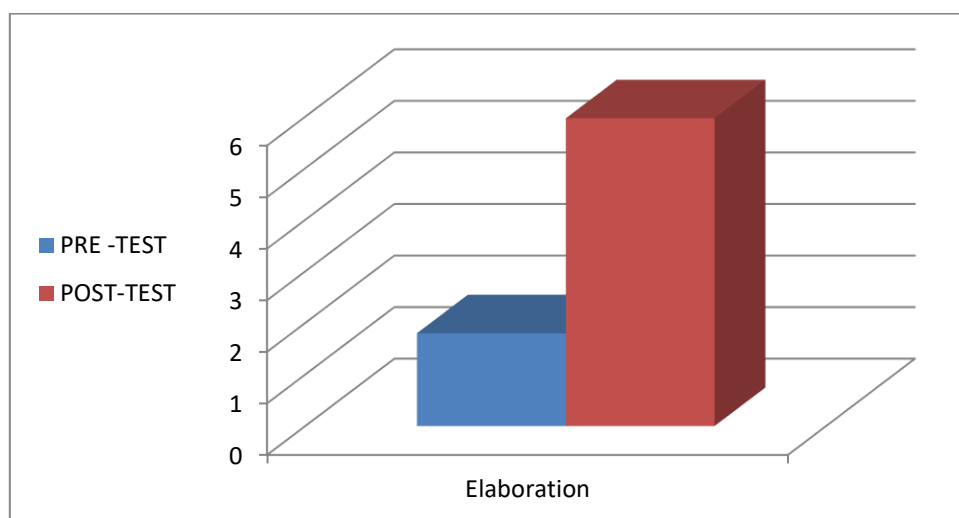


Figure (3) The Differences between pre and post testing of elaboration skill

4.2.1.3. There is a statistically significant difference between the mean scores of participants on the pre-post flexibility test (in favor of the posttest).

Table (4)

Analysis of Scores of participants in the Pre and Post-Testing of flexibility Skills

Variables	Administration	N	Mean	Std. Deviation	t	η^2	(d)
Flexibility	PRE	30	3.40	.770	30.595	0.97	11.33
	POST		11.37	1.542	Sig(0.01)		

Table 4 shows that the mean scores gained by the students of the group are higher on the post-testing of Flexibility skill (11.37) than those obtained on the pretesting (3.40). The “T” value is (30.595) which is significant at (0.01) level. These high gains of the students in the post-testing of flexibility skills could be due to the using of mind mapping strategy. The results of this hypothesis provided an answer to the second sub question of the study as the results revealed that the mind mapping strategy was effective in improving the Flexibility skill of participants. It is also clear that the effect size is large, as the value of the Eta square was (0.97) and the effect size was (11.33), and these values are considered

high, and this means there is a significant effectiveness of using the mind mapping strategy in developing flexibility skill.

In the light of the result of table 4, the second hypothesis, was confirmed and figure 4 illustrates the results.

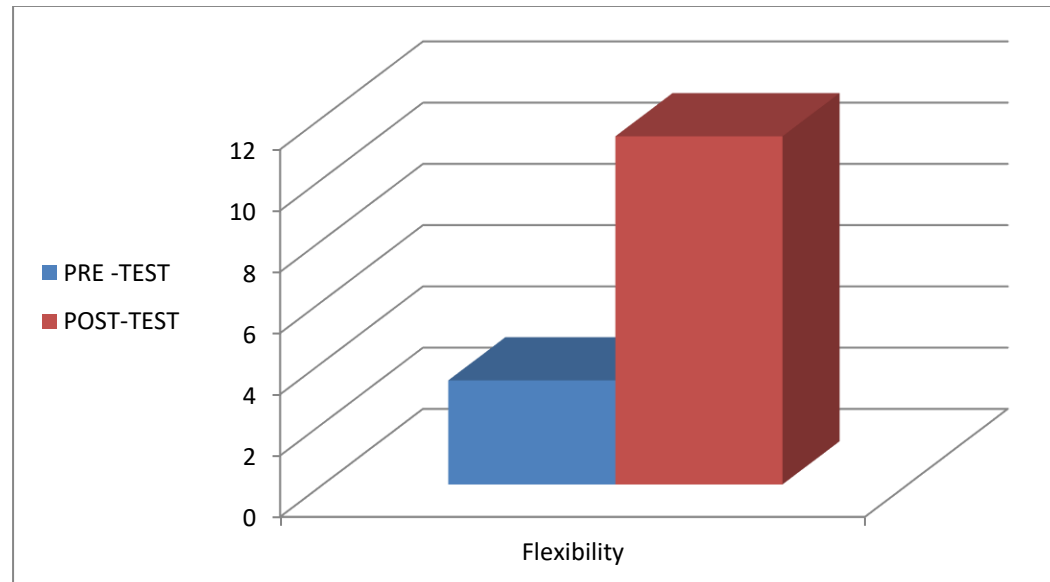


Figure (4) The Difference between pre and post testing of flexibility skills

4.2.1.4. There is a statistically significant difference between the mean scores of the participants on the pre-post originality test (in favor of the posttest).

Table (5)

Analysis of Scores of the participants in The Pre and Post-Testing of originality Skills

Variables	Administration	N	Mean	Std. Deviation	t	² η	(d)
Originality	PRE	30	1.60	.621	11.770	0.83	4.36
	POST		5.67	1.583	Sig(0.01)		

Table 5 shows that the mean scores gained by the students of the group are higher on the post-testing of originality skill (5.67) than those obtained on the pretesting (1.60). The “T” value is (11.770) which is significant at (0.01) level. These high gains of the students in the post-testing of originality skills could be due to the using of mind mapping strategy. The results of this hypothesis provided an answer to the second sub question of the study as the results revealed that the mind mapping

strategy was effective in improving the originality skill of participants. It is also clear that the effect size is large, as the value of the Eta square was (0.83) and the effect size was (4.36), and these values are considered high, and this means there is a significant effectiveness of using the mind mapping strategy in developing originality skill.

In the light of the result of table 5, the second hypothesis, was confirmed and figure 5 illustrates the results.

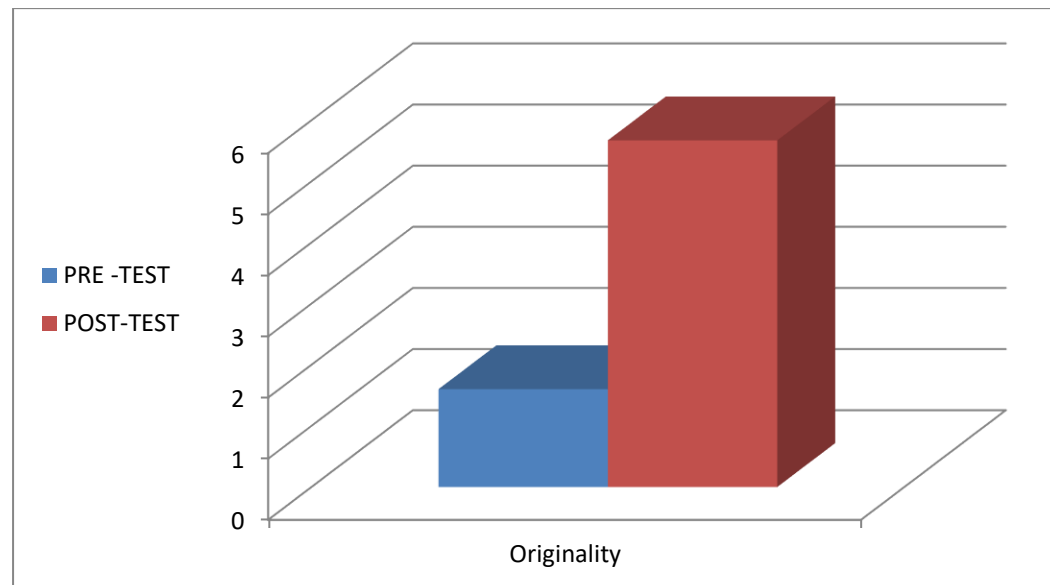


Figure (5) The Difference between pre and post testing of originality skills

Discussion

The present study investigated the effectiveness of using a mind mapping strategy on improving third year preparatory school students' creative writing skills. The results which were obtained on the posttest indicated that the participants achieved significant improvement in creative writing skills after being instructed through the mind mapping strategy. The use of a mind mapping strategy helped in creating an appropriate and attractive environment for teaching creative writing skills. This strategy has been based on the notion that teacher and students work together through the activities incorporated in the strategy such as brainstorming, discussing and question.

Findings of the study are encouraging as they showed that there were statistically significant differences between the mean scores of the study group on the pre-posttest of creative writing skills test in favor of

the post administration. This indicates that the creative writing skills which were included in the study have been improved. As the mind mapping strategy enabled the participants to generate new ideas for writing creatively. More specifically, the prewriting component of mind mapping helped the students to write better. In this way, students had the chance to focus on ideas written down in their own words along with observing connections between ideas.

After implementing the mind mapping strategy, the participants started to be trustful and they had more courage to express their ideas, opinions and reactions; that are because the mind mapping strategy design developed their skills and abilities to write creatively and gave them the feeling of self-confidence and create a good learning atmosphere. Moreover, students received another form of feedback through the use of agreed upon analytic rubrics that focused on the target areas of creative writing (fluency, elaboration, flexibility and originality). These rubrics help students to self- correct their writing texts. In addition, this helps students to improve their creative writing skills and increase their self-confidence and motivation at the same time.

Conclusion

With reference to the results mentioned above, it was concluded that the present study offered evidence for the effectiveness of using mind mapping strategy in developing creative writing skills (fluency, flexibility, originality and elaboration) of third year preparatory school students. Also, the use of mind-mapping strategy in teaching creative writing skills can improve the students' motivation in writing creatively. Additionally, using mind mapping strategy in teaching is very enjoyable to students in all stages.

Definitions of terms

Mind – Mapping Strategy

Buzan (1993:59) defines a mind-mapping as "an expression of radiant thinking and is therefore a function of the human mind, and a powerful graphic strategy, which provides a universal key to unlock the potential of the brain".

Al- Jarf (2011) defined the mind- mapping as "a graphic organizer in which the major categories radiate from a central idea and sub-categories are represented as branches of larger branches. It is a visual tool that can

be used to generate ideas, take notes, organize thinking, and develop concepts". The researcher defines the mind- mapping as a strategy of thinking that brings more flexibility to learning and develops pupils' creative thinking skills.

Creative writing

Creative Writing can be defined as the writing that expresses the writer's thoughts and feelings in an imaginative, often unique, and poetic way. This type of writing is guided more by the writer's need to express feelings and ideas than by restrictive demands of factual and logical progression of expository writing (Lukiv, 2006).

Kaoud, Sheir & El,Hilaly (2016) defined creative writing as" the productive process through which the ESL/EFL secondary students express, their own feelings, emotions and thoughts to others in an interesting literary language characterized by original ideas and expressions that entertain the reader and achieve interaction with the writer.

Creative writing is operationally defined in the present study as the process which helps third year preparatory school students express their thoughts, ideas, opinions and concerns effectively and creatively. The required creative skills that were taught to 3rd year preparatory school students: fluency, flexibility, originality, and elaboration.

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